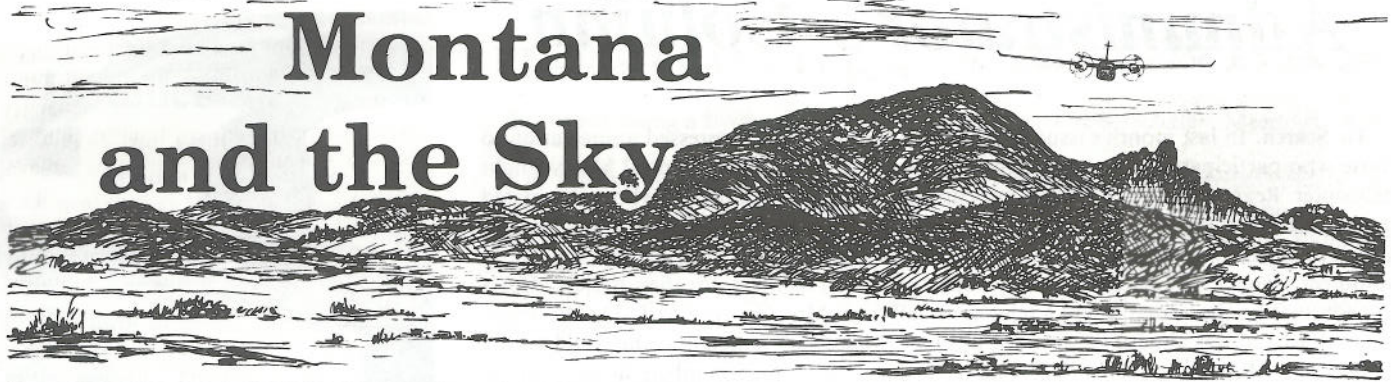


Montana and the Sky



Vol. 38, No. 7

MONTANA AERONAUTICS DIVISION

July 1987

1987 TEACHER WORKSHOPS COMPLETED

**By: Fred Hasskamp, Chief
Safety and Education Bureau**

More and more officials and organizations working in aviation have come to realize the importance of aviation/aerospace education to the future health of the aviation industry.

The Aerospace Teacher Workshops sponsored each year by the Montana Aeronautics Division bring aviation/aerospace to Montana's teachers. Teachers are taught how to integrate aviation/aerospace activities and information into their existing curriculum.

This year six workshops were held at various locations around the state. These workshops are accredited by Montana colleges and universities which include the University of Montana, Montana State University, Eastern Montana College, Dawson Community College, and Carroll College. One hundred nine Montana teachers participated in the 1987 workshops.

Speakers this year included Minot Parker, NASA; Bruce Hoover, NASAO; Larry Welch, science educator from Seattle; Georgia Franklin, aerospace educator from Seattle; Fred Hasskamp, Montana Aeronautics Division; and FAA and other resource people from the local areas.

Noel Bullock, aerospace education specialist with USAF/CAP, Lowry AFB, Colorado, was flown to Montana by Col. Howard Rice to speak on the history of aviation at each workshop.

The Montana Aeronautics Division Teacher Workshop program has received national acclaim for the effectiveness and efficiency in reaching large numbers of young people through their teachers.

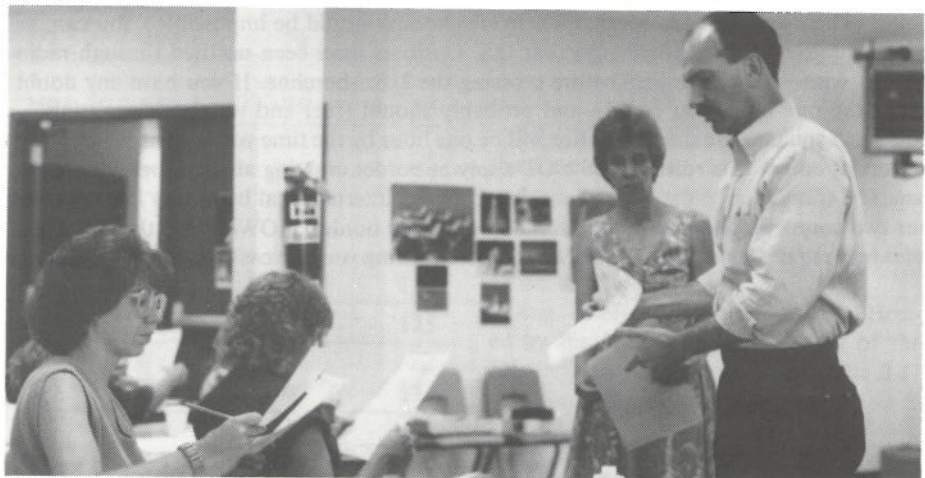
The aviation/aerospace industry is one of the largest employers of people in the

United States, and it is imperative that our young people have a basic knowledge of the industry and, at the same time, develop at-

titudes which are pro aviation. Our future rests in the hands of America's youth.



The Great Falls workshop is conducted by JoAnn Eisenzimer.



Glendive workshop director Kristy Bick looks on as Bruce Hoover from the National Association of State Aviation Officials in Washington, D.C., addresses her workshop. Hoover explained organizations which can be used as resources for aviation/aerospace studies.

(More pictures on page 4)

Administrator's Column

Air Search. In last month's issue of *Montana and the Sky*, I expressed appreciation to those who participated in the air search for the Great Falls North Central Mercy Flight helicopter. Regrettably, once again I am compelled to thank all of you who participated in the search for the Texas Cessna 421. I especially wish to thank Bob Palmersheim of Lynch Flying Service, Billings, and Greg Mecklenburg of Sunbird Aviation, Belgrade, both volunteer search coordinators for their respective search districts, for their tireless efforts in coordinating the search. I had a telephone call from Mrs. George Clark, Dallas, Texas, whose husband was aboard the ill-fated airplane. Mrs. Clark stated that she could hardly believe that Montana pilots would voluntarily turn out in such numbers in an effort to locate the missing plane. Mrs. Clark wishes to express her sincere gratitude to all of you who so generously contributed so much.

* * * * *

Aircraft Parts Shortage/Product Liability Insurance. I note in reading many aircraft publications that there seems to be a growing concern over the fact that aircraft parts are becoming alarmingly scarce. The consensus seems to point to product liability insurance and the manufacturers' 40-year liability responsibility. It is reported that over 50% of all aircraft accidents result in a lawsuit and that nearly all of these are of the "shotgun style" litigation. It is feared that parts suppliers may soon have to go to the foreign countries for parts unless something is done about tort reform. I feel we all need to let our congressional delegation know how we feel about how product liability is rapidly eroding general aviation out of business.

* * * * *

More Federal Taxes for GA Aircraft??? I certainly hope not!!! BUT the House Ways and Means Committee is studying some options which include a 10% "luxury tax" on the sales of non-commercial aircraft. This, of course, would be about the final blow necessary to finish off the GA industry already struggling to stay alive. Although national aviation organizations are voicing strong opposition, I feel that we all need to make our feelings known to our congressional delegation on this issue.

* * * * *

U.S. Customs Fining Pilots. The U.S. Customs Service is increasingly imposing fines ranging from \$500 to \$5,000 on pilots who are failing to give the one hour notice prior to crossing the U.S. borders or coastlines. The one hour requirement became effective about a year ago. Just filing a flight plan with a notation to "advise customs" is not a guarantee, and the only sure way is to telephone the U.S. Customs office at your desired clearing point. (There are places in Mexico where telephoning would be impossible.) You can, as I have done, request confirmation that U.S. Customs have been notified through radio contact with ATC or the FSS before crossing the U.S. shoreline. If you have any doubt about the one hour, you could—and probably should (fuel and weather permitting)—hold until you are sure that the notice will be one hour by the time you land at the clearing airport of entry. This rule DOES NOT apply at border crossing airstrips between Montana and Canada, because these airstrips are on the international boundary line between our two countries and you do not actually cross the border. HOWEVER, the U.S. Customs may require you to wait for one hour before clearing you to cross into the United States.



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New Lights Installed at Ennis

By: Jerry Burrows

Aviation Representative

A new runway lighting system has been installed at the Big Sky Airport, 6 miles southeast of Ennis.

The rotating beacon, clear/green, will operate dusk to dawn. The runway lights may be activated by keying 122.8 five times in five seconds. The lights will remain on for 15 minutes and can be reactivated for a full 15 minutes any time.

Stop by and visit the friendly folks at Big Sky.



PLAINS PLANS FLY-IN

Plains is hosting a fly-in on October 18, 1987.

The Plains-Paradise Chamber of Commerce is sponsoring the fly-in with a free buffet breakfast from 8:00 a.m. until 11:00 a.m. There will be rides available from the airport to breakfast and back. A tour of the town will be available upon request.

For more information, contact Marlene Crawford, Secretary, Plains-Paradise Chamber of Commerce, Box 714, Plains 59859.

KALISPELL BBQ POSTPONED

The Barbecue Fly-In planned at Kalispell for August 1 has been cancelled.

It will be incorporated into the fall MPA fly-in. More information on that will follow.

AIRCRAFT FEE SCHEDULE

From time to time we will continue to publish the following fee schedule which represents the legislation passed replacing the aircraft tax with a fee. This schedule was first published in our April issue.

The legislation becomes effective January 1, 1988. Billings will go out from the Aeronautics Division in December. Registration and payment of the fee is mandatory and due no later than March 1 each year. The penalty for failure to register by the due date is high—five times the fee plus the fee—so awareness of the law and compliance with it are extremely important.

	0-5 Years	6-10 Years	11-20 Years	21-30 Years	31-40 Years
Single engine, fixed gear, 200 HP & under	300	175	100	50	25
Single engine, fixed gear, over 200 HP	500	250	150	75	50
Single engine, retractable gear, 200 HP & under	600	300	175	100	75
Single engine, retractable gear, over 200 HP	700	400	200	125	100
Multi-engine, piston	800	500	250	175	150
Helicopter, piston	700	450	225	150	125
Single engine jet helicopter, prop jet	1,500	700	450	300	175
Multi-engine jet helicopter, prop jet	2,000	1,000	600	400	200
Jet engine—no propeller	3,000	1,500	800	500	250

Glider, ultralight, gyrocopter, balloon, homebuilt aircraft, antiques or any aircraft over 40 years old—\$20.

CALENDAR

July 17-19—Schafer Meadows Work Session.

July 24-26—Comprehensive Safety Program/Fly-In, West Yellowstone.

July 26—Glasgow Air Show. Sponsored by Valley Hangar, MPA.

July 26—Free fly-in harvest breakfast. Beacon Star Antique Airfield, Moore. Frank Bass, Chef. Beacon Star is 160 degrees, 5 miles from Lewistown VOR.

July 29-Aug. 1—INAC Conference, Spokane.

July 31-Aug. 7—EAA Convention and Fly-In, Oshkosh, Wis.

Aug. 1—Columbus Fly-In. Lunch, dinner, contests, dance. Call 322-5974 for more information.

Aug. 9-15—99s International Convention, Vancouver, B.C.

Aug. 15-16—10th Annual MAAA Fly-In, Three Forks. Contact Bud Hall at 586-3933 for more information.

Sept. 4-7—1987 Antique Airplane Association National Fly-In, Bartlesville, Okla.

Sept. 17-20—Reno Air Races.

Sept. 18-20—Mountain Search Pilot Clinic, Kalispell.

Sept. 18-20—99s Northwest Sectional Meeting, Spokane.

Oct. 2-4—MFF Convention, Lewistown.

Oct. 18—Plains Fly-In. Free breakfast 8:00 a.m. to 11:00 a.m.

Feb. 18-21—1988 Montana Aviation Conference, Billings.

Feb. 26-28—Flight Instructor Refresher Clinic, Helena.

SOME REGIONAL AIR SHOWS

July 22—Cheyenne, Wyoming. Featuring the Thunderbirds.

Aug. 8-9—Jamestown, North Dakota. Featuring the Bud Light Jet.

Aug. 13—Bismarck, North Dakota. Featuring the Snowbirds.

Aug. 15-16—Fargo, North Dakota. Hosted by the Red River Valley Wing of the Confederate Air Force. Featuring the B-17 "Sentimental Journey"



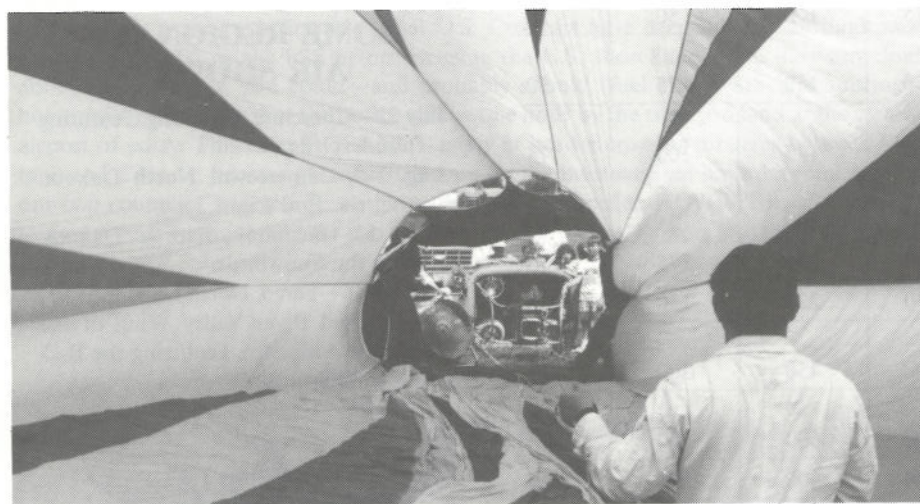
Workshops—continued:



Larry Welch, a science educator from Seattle, Washington, demonstrated classroom experiments and projects to use in the study of aviation/aerospace. Here he prepares some of his materials for a classroom session.



The participants in the Great Falls workshop had an opportunity for a close-up of the inflation of a hot-air balloon and, for some, even a tethered ride.



Have you ever been on the inside of a balloon looking out???



Special instruction on the history of aviation and the role of women in aviation was offered by Georgia Franklin, an aerospace educator from Seattle.



Tool Scholarship Awarded

The Montana Aeronautics Division has awarded a \$250 tool scholarship to Rodney Peace, Fairfield.

Peace was selected by the aviation maintenance staff at the Helena Vo-Tech School as being the top student in his class.

Having earned his airframe and powerplant certificate, Peace is now employed as an aircraft mechanic at the Flight Research Test Pilot School in Mojave, California.

NASA Videotapes Available

Three new videocassettes from NASA are available from the free loan library at the Aeronautics Division. They are NASA Aeronautics and Space Reports and include:

Vol. I—XV-15 Tilt Rotor; Food for Space; Restoring Miss Liberty; Research Aircraft X-29; and Plant Research.

Vol. II—Space Shuttle: Gearing up for '88; Laser Artery; Life Saving Satellites; Robotics.

Vol. III—Riblets: New Speed Technology; World's Most Powerful Computer; Medical Imaging; Airflow Research.

To reserve the videos for showing, simply call the Aeronautics Division at 444-2506. The tapes will be sent to meet your scheduled showing date.

MOODY RETIRES FROM STATE SERVICE

By: Dave Kneedler, Chief
Airport/Airways Bureau

The retirement on June 30 of Vern Moody brought to an end 25 years of service to Montana's aviation community.

Vern's tenure with Aeronautics began on March 19, 1962, with our predecessor, the Montana Aeronautics Commission, beginning work in the engineering section. Shortly thereafter, he was placed in charge of all state-owned airports in Montana and eventually became expert in all phases of airport operation, providing technical assistance to communities throughout the state in the operation of their airports.

He eventually became chief of what was then our Airport Operations Bureau and held that position for many years. In the mid-1970s, what had become the Montana Aeronautics Division was reorganized and three then-existing bureaus were merged into what is now our Airport/Airways Bureau. That necessitated a title change for Vern from Bureau Chief to Aviation Representative—a title he held until retirement. As such, he was assigned total responsibility for all airport and airways matters in an area comprising roughly half the state. It was at this point that he got his feet wet in navigational aid matters, air-to-ground communications, etc.

Over the years, the structure of the Airport/Airways Bureau gradually changed, resulting ultimately in Vern being responsible for all airport development matters in the entire state. In this engineering capacity, he has worked with virtually every county commission, city council, airport board, and airport manager in the state of Montana, advising them on improvement project formulation, planning, funding, pavement maintenance, safety, etc. I could go on and on. In short, I suspect that Vern has, over the years, inspected more airport improvement projects, seen more pavement seal coats, and landed at more Montana airports—more times—than anyone in the state. He will be sorely missed.

Vern's flying career spanned nearly 25 years, as he learned to fly shortly after coming to work for the Commission, and subsequent to that, earned a commercial pilot license. His over 1800 flight hours are unblemished—he has a perfect safety record.

We do not intend to let Vern's knowledge fade into the sunset, however, as we are ex-

ploring the possibility of his doing some contract work for us. So while we wish him well in retirement, we want him to know that he has not seen the last of us!

In recognition of his retirement and years of service to the Division, Vern was presented with a Montana Aeronautics Division Wings pin.



Vern visits with some of the folks who came to the Division open house to wish him well. Pictured are (from left) Vern, Walt Scott, Morrison-Maierle; Dave Stelling, Morrison-Maierle; and Keith Jensen, Robert Peccia and Associates.



Vern and his wife Yvonne are looking forward to retirement and their life taking a new direction.

HERE AND TH'AIR

AOPA Air Safety Foundation Completes Pilot Decision-Making Manuals. The first manuals on aeronautical decision-making developed for use by general aviation pilots have been completed by the AOPA Air Safety Foundation. The three training manuals—student/private pilot, instructor guide for student/private pilot, and instrument pilot—were developed by the Foundation and others under contract to the FAA. The new manuals replace the original ones published by the FAA, and will be distributed by the AOPA Air Safety Foundation and the FAA through the National Technical Information Service. Additional aeronautical decision-making manuals have been prepared for commercial and helicopter pilots and for multi-crew operations. Copies of the Foundation-developed manuals are available from the AOPA Air Safety Foundation, 421 Aviation Way, Frederick, MD 21701.

NATA Reports Concerns with EPA's Proposed Rulemaking on Underground Storage Tanks. The NATA reports that, if adopted in its current form, the proposed rules will result in significant expense to FBOs. An in-depth analysis by NATA shows that FBOs will have to invest significant amounts to upgrade their existing fueling facilities to the EPA's new tank standards. The Association feels that the capital required to accomplish that upgrade can, in many cases, be better used if dedicated to replacing existing tanks with above ground systems.

Construction Projects Under Way

The FAA Airports District Office asks that you make note of the following construction projects:

Salmon, Idaho: The main runway is to be overlaid starting mid-July with the project to last two to three weeks. Use parallel taxiway as the landing area.

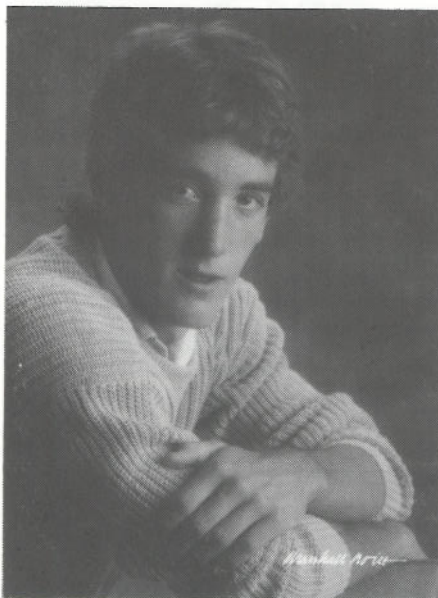
Roundup, Montana: Runway to be closed for reconstruction mid-July to September.

Missoula, Montana: New crash/fire/rescue/maintenance building to start construction June 30. March 1, 1988, is the anticipated completion.

Flight Scholarships Awarded

Two flight scholarships in the amount of \$250 have been awarded to Montana students by the Montana Aeronautics Division.

These scholarships are to be used for flight training with the instructor of the student's choice. Recipients of the scholarships are chosen from students enrolled in an aviation/aerospace related class in school and are chosen for the award by their teachers.



Mike Andriolo, Kalispell

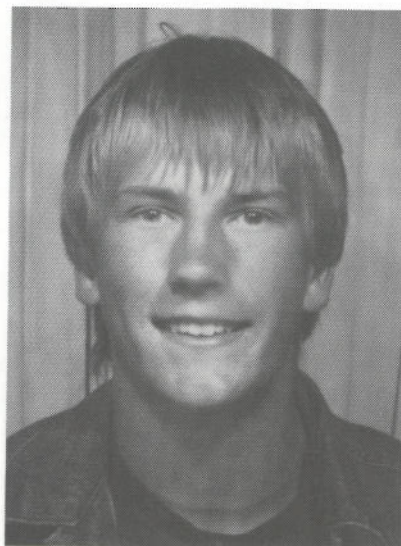
Winning one of the scholarships was Mike Andriolo, Kalispell. Mike is 18 years old and graduated in June from Flathead County High School. His aviation teacher was Fred Naeher.

During his high school years, Mike was involved in football, basketball, and track. He likes to spend his spare time working on cars.

Mike plans to attend the University of Montana this fall and later transfer to the University of Washington in Seattle for a degree in aeronautical engineering. He will use his flight scholarship in Kalispell at Stockhill Aviation.

Chad Mitchell, a seventeen-year-old senior at Broadwater County High School in Townsend was the recipient of the second scholarship. His teacher was Randy Vogel.

Besides loving every aspect of flying, Chad is an avid skier and plays football and basketball for the BCHS Bulldogs. He also



Chad Mitchell, Townsend

designs and builds model airplanes in his spare time.

Chad plans to attend college with the future goal of military service to become a jet pilot. He has already begun his flight training under instructor Ray Austin and hopes to have completed his private rating by the time he finishes school.

Military To Use Townsend Firing Area

The Federal Aviation Administration has approved a Department of the Army request concerning the Townsend Limestone Hills Range Controlled Firing Area (CFA). The Army has received approval to (1) extend the Townsend Limestone Hills Range's hours of use from 14 hours per day to 24 hours per day and (2) increase the time of use from 15 days per year to 30 days per year.

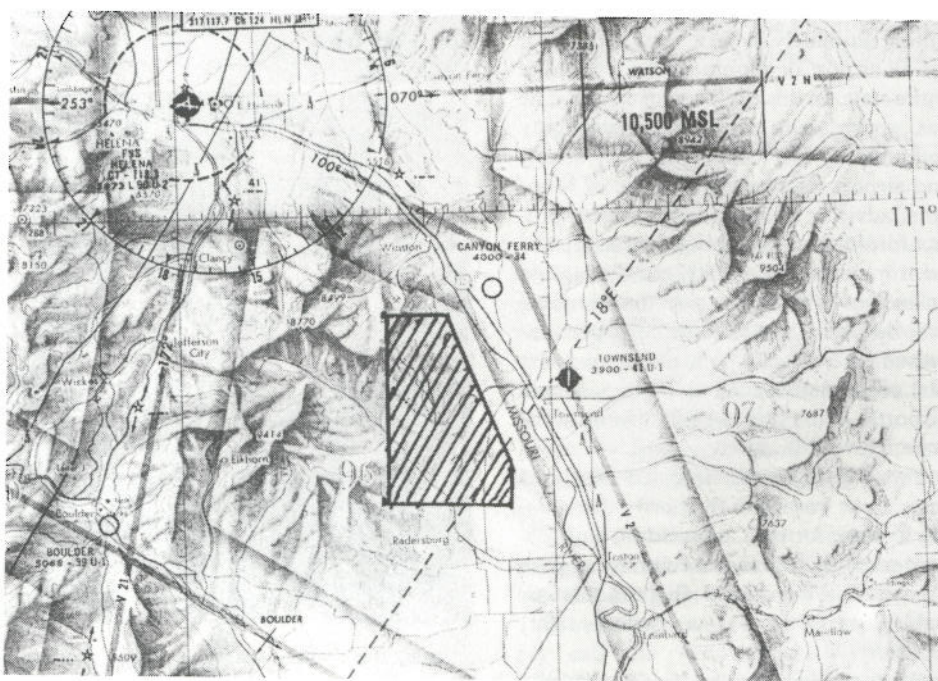
The CFA is depicted on the accompanying map. Additional description includes:

Altitude: Surface to, but not including, 18,000 MSL.

Activity: Tank gunnery, field artillery, mortar, machine gun, grenade launches, helicopter mounted weapons, demolitions, small arms, and laser range finders.

Time of Use: Approximately 30 days per year from 0001-2400 local time on Friday, Saturday, and/or Sunday.

Contact any Montana FSS for information on activity.



Hashed area depicts Limestone Hills firing range due west of Townsend.

MOUNTAIN FLYING TIPS

**By: Fred Hasskamp, Chief
Safety and Education Bureau**

You can never review the dos and don'ts of mountain flying too often. Here are tips for flying in the mountains:

General

1. Make sure that your proficiency level and your aircraft meet the special demands of your planned flight.

2. If you are not sure of your capabilities, take some dual instruction from a flight instructor experienced in mountain flying.

3. Keep your aircraft as light as possible.

4. Be familiar with your planned route of flight and destination airport. Check the field conditions with FSS or experienced local pilots. Familiarize yourself in advance with the field length, elevation, and any special approach/departure procedures.

5. Obtain a thorough weather briefing. A forecast of marginal VFR frequently translates to IFR in the mountains.

6. Plan your trip for early morning or evening hours. Turbulence and density altitude are usually greatest from 10:00 a.m. to 6:00 p.m.

7. Stay out of the mountains if the forecast winds aloft exceed 25 knots below 12,000 MSL. The wind velocity can double in the vicinity of mountain passes and canyons. NEVER fly up a blind or narrow canyon.

8. Mountain winds follow contours much like a stream. The air on the lee (downwind) side of a mountain may be extremely turbulent. Fly on the upwind side of a canyon whenever possible.

9. Cross-check your instruments and altitude indicator frequently. Visual horizons in the mountains may be illusory.

10. Maintain your airspeed in downdrafts and don't panic. Be able to turn to lower terrain at all times.

11. Approach ridges at a 45 degree angle. If caught in a downdraft, you cannot turn away toward lower terrain.

12. Be courteous to those on the ground who are enjoying a wilderness experience. Maintain sufficient altitude—2,000 AGL is suggested over wilderness areas.

13. Plan your trip over valleys as much as possible.

14. Carry a good survival kit and familiarize yourself with its use.

Landings

1. Transmit in the blind on 122.9 MHz at non-unicom airstrips and announce your intentions.

2. A good check out and personal knowledge of conditions existing at "non-standard" airports/airstrips is essential to a safe operation. Some mountainous airstrips are, or should be, considered "one way." Although normally we are taught to land uphill, there are a number of airstrips where downhill/downstream landings are safer. A go-around must always be considered. Wet grass reduces braking action and most mountain airstrips are short.

3. Control your rate of descent with power. Maintain a stable airspeed (generally the short field approach speed listed in your aircraft operations manual).

4. Before beginning your approach, circle your intended destination to ensure that the field is clear of other aircraft, livestock, wildlife, etc.

5. Abort your approach if the air becomes too turbulent on your let-down. Avoid low altitude maneuvering. Be alert for animals on the runway.

Take-Off

1. CHECK DENSITY ALTITUDE! If take-off performance for your aircraft is questionable, wait until evening or early morning when the air is cool.

2. Remember that tall grass or soft field conditions can add considerably to your take-off distance.

3. Choose a go, no-go point on the runway. If not airborne at that point, abort the take-off and wait for better conditions.

4. Take off downstream (downhill) whenever possible. Avoid taking off toward rising terrain.



FAA Issues Certificates

PRIVATE

Richard Kraft	Cut Bank
Marlene Feisthamel	Glendive
John Pachl	Forsyth
James Barnum	Lewistown
Gymie Scribner	Geraldine
Michael Bachini	Havre
Thaddeus Solem	Chinook
Susan Gregory	Billings
Douglas Chandler	Billings
Bernice Moseman	Billings
Larry Rose	Bozeman

COMMERCIAL

David Gellner	Billings
Douglas Egel	Billings

INSTRUMENT

Rocky Sykes	Kalispell
Gerald Bullinger	Billings
Edison Brockhausen	Missoula

MULTI-ENGINE

Scott Johnson	Billings
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INSTRUCTOR

William Wilson	Billings
(Instrument)	
Douglas Egel	Billings

RENEW/REINSTATE INSTRUCTOR

Douglas Parrott	Roundup
Samuel Melnick	Billings
James Buchholz	Colstrip
Earl Norcutt	Billings
David Stallknecht	Helena
Chris Chaney	Great Falls
Thomas Mellott	Conrad
Donald Dolan	Helena
Sidney Brandon	Cut Bank
Myron Strand	Kalispell
Roger Meggers	Baker
Felix Csorosz	Missoula
John Patten	Helena
Edgar G. Obie	Chinook
Harold Matovich	Billings
Roland Pederson	Circle



JUNE SAR ACTIVITY

**By: Fred Hasskamp, Chief
Safety and Education Bureau**

Two alert notices (ALNOTs) were received on overdue aircraft. Both were located—one at the airport in Plentywood and the other at Cody, Wyoming.

Three ELT satellite reports were received. One was in an aircraft at Drummond, one in an aircraft at Lincoln, and the third went off the air before it could be located in the Havre area.

Two major searches were conducted this past month. Both aircraft have been located.

On June 5, the Great Falls based Mercy Flight helicopter was reported overdue with four persons on board. A very extensive

search was conducted from search bases at Babb, East Glacier, Valier, and Great Falls.

The missing Bell 206L was located June 9 high in the mountains north of Gibson Reservoir.

On the evening of June 28, a Cessna 421 that had departed White Sulphur Springs bound for Addison, Texas, was reported missing with four persons on board. An IFR flight plan had been filed but not opened, causing the search to be concentrated immediately south and east of the departure point.

On July 1, the missing 421 was located in the Wyoming mountains near Cody.

We would like to commend all those who helped in any way in the two searches. Without the assistance of so many it would not be possible to find the elusive "needle in a haystack."

These two searches made clear one thing that you have heard so often. That is: "File a flight plan;" and if you deviate from it, let someone know.

**CHECK DENSITY ALTITUDE and
FLY SAFELY.**

2,500 copies of this public document were published at an estimated cost of \$.29 per copy for a total cost of \$718.40, which includes \$543.40 for printing and \$175 for distribution.

MEMBER NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE—"To foster aviation, as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform laws and regulations; and to otherwise encourage cooperation and mutual aid among the several states."

July 1987

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